



## UMass Environmental Health and Safety EPA Site Visit August 2010

### Top 21 Questions from Staff and Researchers and Answers from EH&S

#### HAZARDOUS WASTE

**1. If there is no waste in the bins for long periods of time or the lab has not been in use over a long period of time does the Hazardous Waste Inspection Sheet need to be updated weekly?**

A. If you are going to vacate the lab for an extended period you can alleviate the need to complete weekly inspections by performing the following:

1. Remove all hazardous waste containers from the SAA.

Initial and date the weekly inspection with the note that all hazardous waste has been removed. We do not mind removing partially full containers.

2. This will document that the weekly inspections were completed when hazardous waste was present in the laboratory. You will need to continue these weekly inspections whenever you add another container of hazardous waste to the SAA.

**2. We have a lot of chemicals that need to be picked up right away; can someone come over and help us today?**

A: When everyone was preparing for the possible lab visits by the EPA, EHS was overrun by requests to remove excess and expired chemicals from laboratories on campus. We were thrilled to remove so many inventories from campus; however, in the future, we would like to encourage you to weed out on a more frequent basis.

**3. Where can we find the Weekly Hazardous Waste Accumulation Area Weekly Inspection Checklist?**

A: <http://www.ehs.umass.edu/Weekly%20Inspection%20Form%20Haz.%20waste%20Accumulation%20area.pdf>

**4. How do we maintain a working container of hazardous material when there is a continuous flow of liquid dripping into it?**

A: Working containers must be placed into labeled hazardous waste containers inside secondary containment bins that have been labeled Hazardous Waste as well. Tubing should enter containers through holes in caps that just barely accommodate the diameter of the tubing. This will alleviate fugitive odors from the waste. Waste containers must have a completed Hazardous Waste label on them.

**5. How long do we have to store our Hazardous Waste Accumulation Area Weekly Inspection Checklist?**

A: If you look at the bottom of the checklist, it tells you to keep it for three years.

**6. What do we do when our Hazardous Waste bins are dirty/have spills in them?**

A: Contact Jim Field [jmfield@ehs.umass.edu](mailto:jmfield@ehs.umass.edu) and he can supply a clean bin while the dirty bin gets cleaned.

**7. How do we dispose of large volumes of solid waste?**

A: We deliver plastic bags and plastic buckets with tops, for the storage of solid waste. They need to be double bagged and left in the storage bin with Hazardous waste labels. Triumvirate will then pick up the double bagged solid waste and leave the plastic bin with lid in the lab. A hazardous waste pick-up needs to be entered on-line for the pick-up to take place.

**8. Has EH&S had any unexpected events due to improper waste handling by laboratory staff?**

A: We have had a couple recently. We had to follow up on a waste bottle which exploded in the waste depot. The grad student had left some nitric acid mixed with organics in a 1 gallon glass bottle. The bottle broke while in EHS Hazardous Waste Storage. Another 5 gallon metal container with waste acid and sodium hydroxides also leaked.

**9. Do we put Hazardous Waste labels/stickers on radiological and biological waste?**

A: No. The Biohazard Symbol  and the Radiological symbol  designate the hazards for these materials.

**10. We know that chemical/hazardous waste needs to be in secondary containment and EH&S supplies a gray bin for that, what about radiological and biological waste?**

A: Radiological and biological waste must be in secondary containment at all times, as well. A Rubbermaid™ bin, a bucket, a trash can with appropriate labels, can all serve the purpose of secondary containment.

**11. The autoclave in my building is out of order, how do I decontaminate the biological waste I generate?**

Biological Waste must be decontaminated before disposal. Depending on the type of biological waste this can be accomplished by steam sterilization, incineration or chemical disinfection.

For details see:

<http://www.ehs.umass.edu/bio/fact%20sheets/Fact%20Sheet%20Bio%20Waste.pdf>  
<http://www.ehs.umass.edu/bio/Autoclave%20Mgt%20Program.pdf>

**TRAINING:**

**12. How can I find out if my department's training is up to date, or if an individual has been to training?**

A: Every department has an OWL Manager that has computer permission to look up and modify required trainings within that department. To find out your OWL departmental manager contact Bob Laford at EH&S 545-2682

**LABELING:**

**13. Where can we get labels like you gave to label our wash/squeeze bottles?**

A: Fisher Scientific catalog#: 18-999-789.

**14. What is the EPA compliant labeling for a working chemical solution?**

A: "*Prudent Practices in the Laboratory: Handling and Disposal of Chemicals*" states that: "The labels should be understandable to laboratory workers, members of well-trained emergency response teams, and others. Labels or tags should be resistant to fading from aging, chemical exposure, temperature, humidity, and sunlight.

Chemical identification and hazard warning labels on containers used for storing chemicals should include the following information:

- Name, address, and telephone number of the chemical manufacturer, importer, or responsible party (including researcher),
- Chemical identification and identity of hazard component(s), and
- Appropriate hazard warnings

Containers in immediate use such as beakers and flasks, should, at a minimum, be labeled with the name of the chemical contents. Labeled materials transferred from primary (labeled) containers to secondary containers (e.g., safety cans and squeeze bottles) should include chemical identification and synonyms.

## **BIOSAFETY:**

### **15. When working with BSL-2 agents where should I place Biohazard stickers in the lab? Where do I get the stickers?**

Biohazard stickers should be placed on equipment used for storage or handling of Biohazardous materials (refrigerators, incubators, biological safety cabinets, centrifuges etc.); any vessel or container (filtration flasks, secondary containment etc.) used for handling BSL-2 agents and the laboratory door signage (send an email to Glenda Pons in CEMS at [gpons@ehs.umass.edu](mailto:gpons@ehs.umass.edu) to add the BSL-2 icon).

Biohazard stickers can be purchased from Fisher Scientific or call EH&S at (413)545-2682.

### **16. Do I have to maintain an autoclave log for each autoclave run?**

Yes Autoclave logs are required by the Massachusetts Department of Public Health and are available from EH&S.

For details see:

<http://www.ehs.umass.edu/bio/Autoclave%20Mgt%20Program.pdf>

<http://www.ehs.umass.edu/bio/fact%20sheets/Fact%20Sheet%20Autoclaved%20Waste.pdf>

<http://www.mass.gov/Eeohhs2/docs/dph/regs/105cmr480.pdf>

## **CHEMICAL STORAGE:**

### **17. How do I store my chemicals for compatibility?**

For information on compatible storage of chemicals see:

UMass EH&S Lab Safety Manual <http://www.ehs.umass.edu/hs.html> Appendix G

Safety in Academic Chemistry Laboratories: ACS publication ISBN 0-8412-3863-4

Prudent Practices in the Laboratory: National Academy Press ISBN 0-309-05229-7

For questions or additional information contact EH&S 545-2682

**OTHER:**

**18. My Laboratory Door Sign/Card is out of date. How can I update it?**

A: Cross out any incorrect information on your door card and write the new information directly on it. Send an email to Glenda Pons in CEMS at [gpons@ehs.umass.edu](mailto:gpons@ehs.umass.edu) so that she and her staff can update it for you.

**19. EH&S has told us that our storage of sample vials is poor and/or hazardous and to use racks. Where can we buy these racks?**

A: Companies that sell storage racks for tubes and vials include:  
Fisher Scientific: [www.fishersci.com](http://www.fishersci.com)  
National Scientific: [www.nationalscientific.com](http://www.nationalscientific.com)  
Wheaton Scientific Products: [www.wheatonsci.com](http://www.wheatonsci.com)  
Belart Products: [www.belart.com](http://www.belart.com)

**20. What if we have cracked glass in the sash of our fume hood?**

A: You should place a Service Request through the Physical Plant website and copy Yung Morgan with the number of the Work Order when it is generated.

**21. Why were we asked by some of our department heads to defrost and clean all of our freezers?**

A: Many freezers get overgrown with frost and ice if they are not cleaned routinely. This can create very dangerous conditions if you stop to consider the chemicals and biologicals that may become entrapped in the ice and then break or thaw slowly, become exposed to water, contaminate a number of surfaces, etc. These storage areas need to be re-inventoried at least once per year, and the inventory list taped on the door. This would avoid opening refrigerators or freezers and search of chemical compounds located inside.